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CURRENT SUPPORT MEMORANDUM

SOVIETS SEARCH FOR A REINFORCED CONCRETE TIE

OFFICE OF RESEARCH AND REPORTS

CENTRAL INTELLIGENCE AGENCY

This report represents the immediate views of the
originating intelligence components of the Office
of Research and Reports. Comments are solicited.

CIA HISTORICAL REVIEW PROGRAM
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P.1

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On 9 March 1956 an open All Union competition was announced for the design of a better reinforced concrete railroad tie and techniques for its production; prizes from 3,500 to 15,000 rubles are to be awarded. 1/ This announcement substantiates indications that the USSR has not yet developed a suitable reinforced concrete tie. Such a tie would give far longer service than wooden ties and would also fit into the present Soviet drive to use concrete in place of wood and metal wherever possible. Long efforts to develop a reinforced concrete tie have thus far met with only limited success.

From 1948 through 1952 the All Union Scientific Research Institute of Railroad Transport experimented with and produced about 2,000 prestressed reinforced concrete railroad ties of various types. These were referred to as "quite satisfactory" but were never used in practice. 2/

Khrushchev, in his speech at the Builders' Conference on 7 December 1954, stressed the use of reinforced concrete. Speaking of its uses by the Ministry of Railway Transport he asked: "Why do we, for instance, not learn from the Czechs who are making remarkable reinforced concrete ties and saving this timber material? Go to them and see for yourselves. They are our friends and they will willingly share their experiences with you." 3/

In February 1955 the Council of Ministers directed the various ministries concerned to produce and lay 222,000 reinforced concrete ties on mainlines, sidings and at new industrial plants during 1955. In addition, the Ministry of Transport Construction was directed, by 1 September 1955, to draft and approve project proposals to construct four plants for producing reinforced concrete ties. The new plants would have a total production capacity of 1,000,000 ties per year. 4/ Actual production of reinforced concrete ties in 1955 was about 120,000 ties, enough for approximately 75 kilometers of single track line. 5/

Despite the failure to reach planned production in 1955, the 1956 production goal, as noted in Gudok, was raised to 300,000 reinforced concrete ties. According to the same article, not less than 10,000,000 reinforced concrete ties--enough for 6,200 km of single track line--must be laid during the Sixth Five Year Plan. The article noted, however, that there were serious deficiencies in the scientific research work in this field. 6/

The directives of the Sixth Five Year Plan gave the first indication that the present reinforced concrete tie program was encountering difficulty when it did not specify goals and stated only: "/we/ must provide for the wide introduction of reinforced concrete ties." 7/

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Analyst:

1. Stroitel'naya Gazeta, #30, 9 Mar 56, p 4, U
2. Stroitel'naya Gazeta, #64, 29 May 55, p 3, U
3. FBIS, Daily Report, USSR and Eastern Europe, 29 Dec 56, p CC-9, OFF USE
4. Stroitel'naya Gazeta, #64, 29 May 55, p 3, U
5. Gudok, #32, 8 Feb 56, p 3, U
6. Ibid.
7. Stroitel'naya Gazeta, #25, 26 Feb 56, p 6, U

19 April 1956

CURRENT SUPPORT MEMORANDUM 376

Page 3

~~CONFIDENTIAL~~